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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,705	09/26/2003	Robert R. Gallucci	136138-1	1122

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EXAMINER

HAMPTON HIGHTOWER, PATRICIA

ART UNIT PAPER NUMBER

1711

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/672,705

Applicant(s)

GALLUCCI ET AL.

Examiner

Patricia Hightower

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/26/2003
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Information Disclosure Statement***

The information disclosure statement filed September 26, 2003 has been considered and has been made of record.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-65 are rejected under 35 U.S.C. 103(a) as being obvious over USP 4,965,337 (Peters et al).

Peters et al (USP 4,965,337) discloses a wholly aromatic polyetherimide containing sulfur groups in the backbone; wherein the polyetherimide is characterized by extremely high glass transition temperatures, high chemical resistance and thermogravimetric stability; wherein the polyetherimide principal use are in applications for automotive, aerospace and electrical uses. See abstract; col. 1, lines 2-41, 10-19, 48-68; col. 2, lines 1-et seq.; cols. 3-5; Examples 1-20; col. 7, lines 44-68; col. 8, lines 1-33; col. 6, lines 1-39. The reference uses reactants to prepare the polyetherimide sulfone that are inclusive of those claimed. See cols. 2, 3-5; Examples 1-20; Table 1.

Peters et al teaches the polyetherimides can be obtained by any of the methods well known to those skilled in the art, including the reaction of an

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aromatic bis(ether anhydride) of formula IX with an organic diamine of the formula X, in general the reactions can be advantageously carried out employing well-known solvents, e.g., o-dichlorobenzene, etc., in which to effect interaction between the dianhydrides and the diamines, at temperatures of from about 100 to about 250°C. Alternatively, the polyetherimides can be prepared by melt polymerization of the dianhydrides with any of the diamine compounds while heating the mixture of the ingredients at elevated temperatures with concurrent intermixing. See col. 6, lines 3-39; cols. 3-5. Peters et al teaches at col. 6, lines 32-39, in preparing the polyetherimide one may include in the reaction mixture a chain stopping agent such as a monofunctional aromatic amine such as aniline or monoanhydride such as phthalic anhydride.

At col. 7, lines 45 – col. 8, lines 1-28, the polyetherimide has applications in a wide variety of physical shapes and forms, including the use as films or when made into molded products, including laminated products and solutions of the polyetherimides can be used as overcoats on electrical conductors such as copper, aluminum.

Although, the reference differs in not teaching as instantly claimed the polyetherimide sulfone or polyimide sulfone having a residual volatile species concentration of less than 500 ppm, a total reactive end group concentration of less than about 120 milliequivalents/kilogram resin, the weight average molecular weight of the resulting polyetherimide, the polydispersity index and the polyimide sulfone being essentially free of benzylic protons. Given that the polyetherimide as taught by Peters et al is prepared by reactants that are inclusive of those

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claimed and are used to prepare articles as claimed. It is viewed that the polyetherimide as taught by Peters would possess the claimed properties or characteristics since they are of the same or similar identity.

***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are cited to show the state of the art of polyetherimides/polyimide; Peters, Vora, McGarth and Puyenbroek.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia Hightower whose telephone number is (571) 272-1073. The examiner can normally be reached on M-F from 9:30 A.M. - 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



P. Hampton Hightower  
Primary Examiner  
Art Unit 1711

P. Hightower:ph  
October 30, 2004